

REMARKS

Favorable reconsideration and allowance of the present application are respectfully requested in view of the following remarks.

Claims 1-39 are currently pending in the present application, including independent claims 1, 15, and 25. Independent claim 1, for instance, is directed to a flexible laminate structure comprising a first substrate containing a thermoplastic polymer and a second substrate containing a thermoplastic polymer. At least one of the substrates is substantially impermeable to liquids but substantially permeable to gases. Additionally, each substrate is textured and possesses elevations and depressions, the depressions being fused together to form fused portions and the elevations forming unfused portions. The unfused portions define pockets containing discrete regions of a functional material, and the functional material is selected from the group consisting of particles, liquids, and combinations thereof. The pockets have an approximate width to height ratio of less than about 10.

In the Office Action, independent claims 1, 15, and 25 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,892,535 to Bjornberg, et al. in view of U.S. Patent No. 5,411,497 to Tanzer, et al. Bjornberg, et al. is directed to absorbent pads of the type used to form incontinence pads, wherein the absorbent pad comprises a liquid-impervious back sheet with spaced islands of absorbent material thereon and a liquid-pervious cover sheet having pockets formed therein, in which the islands of absorbent material are disposed.

Applicants respectfully submit that Bjornberg, et al. completely fails to disclose or suggest certain limitations of Applicants' pending claims. For example, Bjornberg, et al. fails to disclose or suggest a laminate structure wherein each substrate is textured and possesses elevations and depressions, the depressions being fused together to form fused portions and the elevations forming unfused portions.

At pages 4 and 5, the Office Action stated the following with regard to the above-emphasized claim limitation and the Bjornberg, et al. reference:

First, it is noted that [the] this is a limitation directed to the shape of the material before it is laminated. However, patentable weight is only given to the **shape of the product in the final form.** Hence,

the prior art does not need to start out with textured outer layers **as long as the final product has the claimed elevations and depressions**. As set forth in the previous Office Action, the bottom layer taught by Bjornberg et al. will not stay completely flat, but will bulge out due to the presence of the particles, inherently forming elevations and depressions in the final product. **The backing layer does not need to have a textured form before the laminate is produced since the Applicant is claiming the laminate in the final form.**

(Emphases added). Applicants respectfully submit, however, that the “shape of the product in the final form” taught by Bjornberg, et al. is quite distinct from the flexible laminate structure in its “final form” that is recited in Applicants’ pending claims.

In Bjornberg, et al., the “product in final form” is an absorbent pad formed by laminating a liquid-impervious back sheet to a liquid-pervious cover sheet, wherein pockets are formed in the cover sheet while the back sheet remains substantially flat. By way of example, column 3, lines 34-65 of Bjornberg, et al. describe Figures 1-3 as showing the “absorbent pad 1”—clearly the “product in final form”—and back sheet 3 is completely flat in those Figures. Rather than disclosing or suggesting any embodiment where two substrates in a flexible laminate structure are both textured and possess elevations and depressions, Bjornberg, et al. repeatedly explains that its “pockets” are formed in its “cover sheet” 7, **not** in its back sheet 3. (See, e.g., col. 2, lines 60-62; col. 4, lines 10-13; col. 5, lines 39-56; col. 7, lines 48-52, etc.). For instance, column 2, lines 41-45 of Bjornberg, et al. describe the cover sheet between the channels being of “three-dimensional form having a plurality of spaced pockets therein, in each of which one of the bodies of absorbent material is disposed,” not once suggesting that the back sheet 3 has any sort of “three-dimensional form.”

The Examiner has suggested that the substantially flat back sheet of Bjornberg, et al. would “bulge out” due to the presence of the bodies of absorbent material, and thus result in a substrate that is textured and possesses elevations and depressions. Yet, nothing in the disclosure of Bjornberg, et al. itself contemplates the back sheet 3 as having any configuration other than being substantially flat. And even if such “bulging” did occur, one of ordinary skill in the art would not recognize such a structure as a “textured substrate” having elevations and depressions. For example, Applicants’

Figure 1C shows a side view of substrates 12 and 14 fused together—clearly, the flexible laminate structure or the “product in final form” claimed by Applicants—wherein substrates 12 and 14 are both textured and possess elevations and depressions, the depressions being fused together to form fused portions 24 and the elevations forming unfused portions. (Appl., p. 4, lines 2-6; p. 21, line 24 – p. 22, line 16).

Contrary to particles merely “bulging out,” forming such textured substrates (like substrates 12 and 14) that fuse together to form fused portions 24 generally requires a certain level of heat and pressure to mold and shape the substrates into a textured form. Upon cooling, the textured substrates would retain their textured form. On the other hand, a “substantially flat” sheet that only bulges upon contact with particles is not “textured” as understood in the art—i.e., it does not possess a textured form in the absence of such particles. Thus, Applicants respectfully submit that any “bulging out” of Bjornberg, et al.’s back sheet 3, due to the presence of particles, simply would not render that back sheet a “textured substrate that possesses elevations and depressions,” based on the ordinary meaning to those skilled in the art. Accordingly, then, Applicants respectfully submit that Bjornberg, et al. fails to teach or suggest the limitation in Applicants’ claims requiring each substrate to be textured and to possess elevations and depressions, the depressions being fused together to form fused portions and the elevations forming unfused portions.

Additionally, Applicants respectfully submit that Bjornberg, et al. fails to disclose or suggest a flexible laminate structure in which at least one substrate is substantially impermeable to liquids but substantially permeable to gases. The Office Action recognized this at pages 2 and 3. Nevertheless, Tanzer, et al. was cited in combination with Bjornberg, et al. in an attempt to render obvious claims 1, 15, and 25, wherein the Examiner referred back to the rejections of claims 9, 19, and 33 made in an Office Action mailed on September 9, 2003. Specifically, in that Office Action, it was stated that Tanzer, et al. discloses at column 6, lines 60-66 that its impermeable back sheet can be made from a microporous, breathable film which allows water vapor to escape from the absorbent structure. (September, 2003 Office Action, at 8). The Office Action

further stated that it would have been obvious to substitute Tanzer, et al.'s back sheet for the back sheet taught by Bjornberg, et al.

Applicants respectfully submit that the claims patentably define over the combination of Tanzer, et al. and Bjornberg, et al. set forth in the Office Action. The portion of Tanzer, et al. referred to by the Examiner in column 6 is describing backsheet 30, which is the liquid impermeable backsheet **for the entire diaper 10 and which is completely flat.** (See, e.g., col. 3, lines 64-65 and Figures 2, 4, and 8). In short, backsheet 30 does not constitute a substrate that (1) is substantially impermeable to liquids but substantially permeable to gases *and* (2) is textured and possesses elevations and depressions. Thus, for at least the reasons above, Applicants respectfully submit that independent claims 1, 15, and 25 patentably define over the combination of Bjornberg, et al. and Tanzer, et al. because the references do not disclose or suggest—alone or in combination—the flexible laminate structure and method set forth in Applicants' claims.

Further, in the Office Action, independent claims 1 and 15 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,938,650 to Baer, et al. in view of Tanzer, et al. Baer, et al. is directed to an absorbent core for absorbing liquids. Baer, et al. fails to teach several aspects of the present claims. For instance, Baer, et al. fails to disclose or suggest pockets having an approximate width to height ratio of less than about 10 (or between about 1 to about 8). Additionally, independent claims 1 and 15 require that at least one of the substrates is "substantially impermeable to liquids but substantially permeable to gases," and the Office Action recognizes at page 3 that Baer, et al. lacks such a teaching. Nevertheless, Baer, et al. was combined with Tanzer, et al. to reject claims 1 and 15.

As discussed above, the portion of Tanzer, et al. referred to by the Examiner in column 6 is describing backsheet 30, which is the liquid impermeable backsheet **for the entire diaper 10 and which is completely flat.** (See, e.g., col. 3, lines 64-65 and Figures 2, 4, and 8). Again, backsheet 30 does not constitute a substrate that (1) is substantially impermeable to liquids but substantially permeable to gases *and* (2) is textured and possesses elevations and depressions to make up part of Applicants'

claimed flexible laminate structure. Thus, for at least these reasons, Applicants respectfully submit that independent claims 1 and 15 patentably define over the combination of Baer, et al. and Tanzer, et al.

In addition, independent method claim 25 was rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of Baer, et al., Tanzer, et al., and further in view of Bjornberg, et al. The Office Action stated that Baer, et al. fails to teach using a vacuum or suctional force to apply the particles to the substrate but that Bjornberg, et al. discloses that pockets can be formed by vacuum. (Office Action, at 3). Essentially, the Office Action asserted that it would have been obvious “to vacuum form pockets in the laminate produced by Baer, et al. because vacuum forming is a known method to create pockets that hold particles.”

Applicants’ claim 25 requires, among other steps, depositing a functional material onto a first substrate in discrete regions, wherein a suctional force is used to facilitate the positioning of the functional material in the discrete regions. For example, in one embodiment of the present invention, as shown in Figure 4, a vacuum roll 33 may apply a suctional force to discrete areas of the lower surface of the substrate 12 to better control the positioning of the functional material 28 within a discrete region of the substrate 12.

The deposition technique contemplated by Baer, et al. involves “uniformly depositing” the SAP onto the lower layer 12, rather than using a suctional force to facilitate the positioning of the functional material in discrete regions of a substrate. (Col. 3, lines 57-62; Fig. 1). In light of this, the Office Action attempted to combine Bjornberg, et al. with Baer, et al. because of Bjornberg, et al.’s teachings about, for example, using vacuum chamber 37 to help in “pocket filling.” However, Applicants respectfully submit that one having ordinary skill in the art would not have found it obvious to combine Baer, et al., Tanzer, et al., and Bjornberg, et al. and somehow arrive at Applicants’ claimed method.

For example, in Figure 1, Baer, et al. makes clear that its two layers of fabric are passed through the nip of a pair of rolls 18 and 20 under heat and pressure, wherein the surface of one of the rolls is engraved and has a relatively raised repeating bonding

pattern. Those rolls 18 and 20 are what cause portions or lines in the two webs to be compacted with the fibers of the two webs being thermally bonded to form a partial laminate, with the remaining areas being unbonded and having the SAP particles loosely resident therein. (See col. 3, line 63 – col. 4, line 4).

In contrast, Bjornberg, et al. discloses a fairly complex system in which pockets are first formed at a pocket forming station, are then filled at a pocket filling station, and are later subjected to a glue spraying operation, all of which rely on a single, multi-perforate drum 17 that contains several vacuum chambers (23, 37, 61, and 63). There is no teaching or suggestion in the prior art how one of ordinary skill in the art would modify the process disclosed by Baer, et al. with teachings from the process disclosed by Bjornberg, et al. and arrive at Applicants' method of independent claim 25. In fact, it appears that the Examiner's only incentive or motivation for modifying Baer, et al. using both Tanzer, et al. and Bjornberg, et al. results *improperly* from using Applicants' disclosure as a blueprint to reconstruct the claimed invention out of isolated teachings in the prior art. Thus, for at least these reasons, as well as those set forth above, Applicants submit that independent claim 25 patentably defines over the cited references.

Applicants emphasize that the teachings of references must be viewed in their entirety, i.e., as a whole, to sustain a *prima facie* case of obviousness under 35 U.S.C. §103(a). In addition, the differences between a particular claim and the cited references cannot be viewed in a vacuum. Instead, the entire claimed invention must be considered as a whole. Applicants respectfully submit that, when properly viewed as a whole, there is simply no motivation to modify the cited references in an attempt to render obvious the claims 1, 15, and 25.

In addition, dependent claims 2-14, 16-24, and 26-39 were rejected using the above-cited references in various combinations, some further in view of U.S. Patent No. 5,332,613 to Taylor, et al. Applicants respectfully submit, however, that at least for the reasons indicated above relating to corresponding independent claims 1, 15, and 25, claims 2-14, 16-24, and 26-39 patentably define over the references cited. However, Applicants also note that the patentability of dependent claims 2-14, 16-24, and 26-39

does not necessarily hinge on the patentability of independent claims 1, 15, and 25. In particular, some or all of these claims may possess features that are independently patentable, regardless of the patentability of claims 1, 15, and 25.

As such, for at least the reasons set forth above, Applicants respectfully submit that the present claims patentably define over all of the prior art of record. It is believed that the present application is in complete condition for allowance and favorable action, therefore, is respectfully requested. Examiner Befumo is invited and encouraged to telephone the undersigned, however, should any issues remain after consideration of this Response.

Please charge any additional fees required by this Response to Deposit Account No. 04-1403.

Respectfully submitted,

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